was no significant difference over time for the HabDiet group, nor was there any difference between dietary groups.
Conclusions: Following a traditional MedDiet for 6 months may help reduce oxidative stress *in vivo* in older Australians which may assist with healthy vascular function and cognitive ageing.
Funding source(s): NHMRC.

POSTER SESSION 1.

A METHODOLOGICAL APPRAISAL OF POSTPRANDIAL VASCULAR FUNCTION FOLLOWING OGTT IN MIDDLE-EASTERN MEN

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Background/Aims: Vascular function is influenced by meal ingestion. We determined whether different time-points of observation were equivalent in detecting postprandial changes.
Methods: Twenty-two Middle Eastern adult men aged 29 (5.3) y and percent fat 32 (8.9) were studied after a two day avoidance of vigorous physical activity, an overnight fast and a mandatory 30 min rest in bed. All recordings were made in the supine position, at fasting and every 15 min for 2 h following a 75 g OGTT. Blood pressure and heart rate was monitored through a semi-automated device and mean arterial pressure (MAP) was calculated. Endothelial function (EF) was assessed through pulse contour analysis that provided stiffness index (SI) and reflective index (RI). Integrated area under the curve (iAUC) was calculated by the trapezoid rule for 15 min and 30 min time-points.
Results: There was a significant drop in RI and an increase in HR following OGTT that was detected by both methods. There was no difference between methods on a paired *t*-test (iAUC-15 *vs*. iAUC-30) in RI [-11.2 (18.7) *vs*. -10.0 (17.4)%; $p = 0.29$], SI [-0.15 (1.7) *vs*. -0.14 (1.4) m/sec, $p = 0.39$], HR [+6.1 (5.8) *vs*. +5.9 (6.4) beats/min; $p = 0.69$] and MAP [1.8 (11.2) *vs*. 1.7 (10.9) mmHg, $p = 0.80$]. Mean differences between methods were unrelated to the average of the two for all parameters. ICC for SI, RI, HR and MAP were 0.99, 0.96, 0.95 and 0.99, respectively.
Conclusions: The time-points of iAUC were equivalent for postprandial vascular function in this group.
Funding source(s): N/A.

EFFECT OF PROCESSING ON NUTRITIONAL VALUE OF DIFFERENT PARTS OF ROOT AND TUBER CROPS AS LIVESTOCK FEED

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Background/Aims: To investigate the effect of processing on nutritional value of root and tuber crops as livestock feed resources.
Methods: Fresh potatoes, sweet potatoes, cassava, yam and dalo purchased from the market were washed and cut into slices. Fresh slices of peeled, unpeeled and peels of root and tubers were divided into three equal parts. One part was analysed for chemical composition as fresh samples, while remaining two parts were oven dried at 60 ^{o}C and sundried respectively. Sundried and oven dried samples were also analysed for chemical composition respectively in a $5 \times 3 \times 3$ factorial experiment and data were expressed on as-fed basis. Interaction between type of tuber crop, component parts and processing on nutrient concentration was tested using three-way ANOVA.
Results: No difference ($p > 0.05$) was found in the moisture content of fresh sample results between root and tuber crops parts. However, there are significant interaction effects ($p < 0.05$) between the type of tuber crop, part of tuber crop and processing methods for dry matter, ash, crude protein, crude fibre and soluble carbohydrate fractions. Sundried potato and sweet potato peels have higher significant ($p < 0.05$) protein content (11.5%) than other parts of root crops. Equally, soluble carbohydrate fractions of sundried yam and dalo were significantly higher ($p < 0.05$) than potato, sweet potato and cassava.
Conclusions: Processing method affect nutrient composition of root and tuber crops.
Funding source(s): Fiji National University.

24-HOUR URINARY IODINE CONCENTRATION AND 24 H URINARY IODINE EXCRETION IN A SAMPLE OF AUSTRALIAN PRIMARY SCHOOL CHILDREN

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Background/Aims: The most common method for determining a population's iodine status is median Urinary Iodine Concentration (UIC) determined in spot urine samples. Urinary Iodine Excretion (UIE) derived from 24-hour urine collections is likely to provide a more accurate measure of iodine status as it captures variations in excretion over the whole day, however few surveys have utilised 24-hour urine collections to determine UIC. We aimed to assess UIC (μg/L) and UIE (μg/day) in 24-hour urine collections obtained from a sample of Victorian primary schoolchildren and to determine whether the sample is iodine sufficient, when compared with World Health Organisation (WHO) guidelines.
Methods: As part of a cross-sectional study, 24-hour urine samples were collected from primary school children aged 5-12 years from 42 schools across Victoria, Australia between 2010-2013.
Results: The sample included 650 children, 359 boys and 291 girls [mean (SD) age 9.3 (1.8) years]. The mean urine volume was 873 (424) mL. The mean UIE and median (IQR) UIC were 104 (54) μg/day and 124 (83,172) μg/L respectively. Boys were found to have significantly higher mean UIE compared to girls (112 *vs*. 93, $p < 0.0001$). The median UIC of the children falls between 100-199 μg/L, indicating adequate iodine status. Using UIC 36% of participants were classified as having a UIC less than 100 μg/L, with only 8% less than 50 μg/L.
Conclusions: In comparison with WHO guidelines for assessing the iodine status of a population, this group of Victorian school children is iodine sufficient.
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A RAT MODEL FOR DETERMINING POSTPRANDIAL RESPONSES TO FOODS

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Background/Aims: Rodent models for investigating postprandial plasma nutrient responses are limited by blood collection volume. We aimed to develop a rat model that overcomes that shortcoming and evaluate its performance in an acute metabolic study.
Methods: Rats trained to eat meals had a temporary or permanent indwelling catheter inserted in the jugular or caudal (tail) vein, respectively. Multiple blood samples were collected before and after consumption of a white bread test meal (containing 0.4 or 1.25 g carbohydrate) and analysed for glucose and insulin. Effects of meal timing (start or end of the dark period), anaesthesia recovery time and portion size were evaluated.
Results: Both meals raised blood glucose concentration and the level remained above baseline at the end of the sampling period (3 h) in rats fed the larger (1.25 g) but not smaller (0.4 g) carbohydrate load. The glycemic response tended to be higher when the meal test was conducted at the start rather than the end of the dark period ($p = 0.063$) whereas the insulinemic response was unaffected. The postprandial glycemic response was consistently less for caudal vein blood than jugular ($p < 0.05$).
Conclusions: This model enabled multiple blood samples to be taken from unrestrained animals to assess the glycemic response to a standardised meal. The shape of the glucose response curve is consistent with that observed in people. This model provides a new opportunity to investigate postprandial nutrient bioavailability and metabolic responses to food